1: Métraux E-4 (no date) 1946 SM3 Caingang SM3

some other tribe, the ancient *Caingang* were improvident and consumed their crops as they matured, storing none for the lean months ahead. On the other hand, Horta Barboza (1913, p. 34) states that maize was as important to them as "wheat for the Europeans." The *Caingang* of the region of San Pedro (Misiones), observed by Ambrosetti (1895, p. 337), opened their clearings in tracts covered with bamboo or sparse bush. They broke the small trees with cudgels or by hand. When the dead trees were dry, they burned them and waited until the beginning of the rainy season for sowing. Women planted crops with digging sticks; they also harvested the crops and carried them home. Men do all the farming in the reservation of Palmas.

In modern groups the tiller of a field is recognized as its exclusive owner; if he dies before harvest, the seedlings are destroyed.

Collecting.—When the *Caingang* were still living in their aboriginal condition, pine nuts of *Araucaria angustifolia*, a tree which has a distribution coinciding more or less with that of the tribe, was fundamental to the native diet. From April to June the Indians gathered in the forests to climb the trees and knock down the ripened fruits, which the women helped to pick up. The climbing technique—also used in getting honey or in robbing birds' nests—was to pass one noose around the feet, another around the tree and the climber's back, and alternately move the two bands up the trunk. The *Aweikoma-Caingang* used only a noose of bamboo strips.

The *Caingang* also collected wild tubers (*Dioscorea* sp.) and a great many wild fruits, such as jaboticaba (*Myrciaria* sp.), pitanga (Myrtaceae sp.), articú (*Annona montana*), pineapples, papaya (*Carica papaya*), caraguatá (*Bromelia* sp.), etc. The starchy pith of the pindo palm (*Cocos romanzoffiana*) was formerly an important food item, but today has been supplanted by manioc flour.

Honey and the larvae of bees and especially the larvae of the tambú beetle, which abound in decayed palm and bamboo trunks, are prized delicacies. It is also reported in some sources that the ancient *Caingang* did not despise snakes or lizards.

Hunting.—The *Caingang* spend a large portion of their time hunting alone or in small parties. The dog, treated by some groups as an indispensable auxiliary, is a recent acquisition. Some *Caingang* groups lacked it as late as 1912. To develop the smelling powers of their dogs, the Indians expose them to the smoke of the burnt skin of the game which they are to stalk. They never give them the bones of game animals to gnaw, taking great precaution lest the game be offended.

An entire band participates in a peccary hunt. Old and young, preceded by dogs, endeavor to drive the animals toward hunters, who shoot them with arrows. The *Aweikoma-Caingang* follow droves

2: Henry E-5 (1932-1934) 1941
SM3 Caingang SM3
Aweikoma

Figures for Five Weeks' Trip

Tapirs Killed: 7[8] × *Average Weight* 200 lbs. =	1400 lbs.
Average population during 5 weeks	18 (not including infants)
Pounds of meat per person for 5 weeks	77
Pounds of meat per person per day	2⅕

The figures are self-explanatory as far as tapir are concerned. During this time about ten monkeys were killed and a number of birds of varying sizes of which I could not keep track. The weight of the monkeys as compared to the combined weights of the tapirs is so small that I shall not include them in the figures.

The figure of two and a fifth pounds of meat per day should be modified, as allowance must be made for the heavy hide, bones, and internal waste. Such an allowance would bring the weight per person down to less than two pounds. Not all of this meat remained in camp, for a considerable portion of it was taken away by Indians returning to the post. In addition to this meat the Indians were plentifully supplied with pine nuts most of the time and they sometimes had a fair supply of *tai*, a yellow fruit with a tasty pulp of very doubtful nutritive value. The quantities of other kinds of fruits consumed was negligible. The Indians also had along with them on this trip small quantities of corn and manioc meal and beans, and the new arrivals would bring food from the post. With all this, at no time could it be said that there was a surplus of anything but pine nuts. These were buried in a stream bottom to preserve them.

The Indians ate moderately; yet rarely did any kill seem to last us more than three days. This would mean about fourteen meatless days out of thirty-five. Fourteen meatless days would indicate that if the Kaingáng had eaten all the meat they killed they would have consumed not 2.2 pounds per person daily but 3.7 pounds. But probably as much or more than a third of the meat was taken back to the post. This would leave the original figure of about two pounds per person daily. To us two pounds of meat a day seems an extremely large quantity, but we do not view meat, as the Kaingáng do, as our principal food. To the Kaingáng, meat is the principal article of diet; everything else is garnish.[7]

Gathering Pine Nuts

An Indian selects several flawless bamboo stems,[8] cuts them down, splits them carefully from end to end into four strips about an inch wide, exam-

[8] An eighth tapir was killed the day before we returned to the post.

[7] This also makes quite a different picture from most of Melanesia, where vegetable foods are most important and meat is the garnish.

[8] Full-grown bamboo stems are about 15 feet in length.

2: Henry E-5 (1932-1934) 1941
SM3 Caingang SM3
Aweikoma

lines them carefully for knots, and runs his knife along, chopping off the projecting nodes that divide the stem into short sections. This is done to make it all as smooth as possible. Now he throws one length of bamboo around the pine, inside out, and winds one end of the length around the other end, making a loop about four feet in diameter. While several feet of the first length are still unused he takes a second length of bamboo and slips it under the windings. Then he winds the first length around the second until he has exhausted the first length, whereupon he continues his winding with the second. Now he slips a third length under the second and continues the winding as before, and so with the fourth and last. He lets a short end dangle loose, flexes the loop about the tree to make it pliable, and gets inside of it. The loop is around him and the tree. He has an axe in one hand. He slides the loop up above his head, then throws his weight backward against it until it is taut. He places the soles of his feet against the rough bark of the pine and begins to walk up. Now his body is bent in an arc as his feet approach his hands which hold tight to the loop, and he shifts it upward again. Again he starts to walk, selecting spots on the bark where his feet will cling best. As he ascends he sinks the axe into the tree above his head so that he will not have to carry it. Each time he reaches the axe he again pulls it out and sinks it into the tree farther above his head. When he reaches the first little branch, twenty feet above the ground, he lops it off because he cannot stand on it and it impedes his progress. As he climbs he lops off one or two more such branches and at last reaches the first strong limb that projects horizontally. He climbs up on it and ties his loop to the branch by the loose end in such a way that he can step into it easily when he is ready to descend. Now he holds on to the trunk and cries, "Look out!" His wife moves a good thirty feet out of range of the cones that come hurtling down with skull-crushing force as her husband dances around on the branch thirty to fifty feet in the air above her and dislodges the cones with his weight. When the tree is emptied of its fruit he steps into his loop and descends rapidly in much the same way as he went up.

Now his wife and he begin the search for the cones among the brush. They gather them all together, break them open, and take out the nuts. A tree requires about half an hour. The amount of nuts obtained from a single tree is very variable. Then the couple go away, leaving the loop behind them, for it cannot be detached from the tree. A fresh loop must be made each time. Each person selects his trees as he wanders about. There are plenty of trees for all, and no quarrels arise. If a woman has no husband her brother or some other relative will knock down nuts for her. Sometimes two men help one another. Nuts are the property of the people who have gathered them. There is no pooling of the crop.

Examples:

193 *kakɔ ŋv tã ɲa*
he stand
539 He paid no attention.

ha kũ ŋv ɔŋ ti ka 'kɔ mu
therefore they him pay not attention
Therefore they paid no attention to him (let him alone).

mɔ appears in association with adverbs, thus:

ŋaı'tʃili mɔ ɔk tõ nɛ'viŋ ŋa
a long time ago they do
A long time ago they did it.

yæ nũ ɛŋ ha e pili mɔ
indefinite future I I I one

yæ nũ to ũ pæ'nũ
indefinite future I other shoot at and hit

yæ tɛŋ
in order to go
I am going alone to shoot some.

mu ɲaŋ'lɔ ŋv tã 'ŋgɯmõ kũ ŋv
in the meanwhile be up above[1] and

tã ku'ðɛ ka ɲa
he loop in stand
[481] In the meanwhile he was up above resting in his (climbing) loop.

mɔ may, therefore, be looked upon as an adverbializer.

I have only two other examples of *mɔ* attached to other elements:

a yɜklæ mõ nũ yæ a
your thinking I indefinite future you

'taı to aklæ 'tũ tɛ ɲaŋ'lɔ nũ a 'taı
kill think not I you kill

tɛ
definite future
You think that I won't kill you but I will.

[1] I have examples of this element with the vowel both nasalized and unnasalized. Since the contexts are always similar I am giving both types of vowels in the discussion of the same element. The examples of the use of this element are few.

252 and the stones covered with pieces of wood and palm leaves (ndõtoĩõ), where the chunks of meat are laid with the hide still attached. The whole thing is covered with another layer of palm leaves and a thick layer of earth. The meat cooks slowly in this fashion for about twelve hours, and the flavor it acquires in the process is remarkable.

263 The Botocudo were altogether unfamiliar with salt until the time of peaceful contact, and for a long time thereafter they refused all salted food from us. Even today the older warriors will not accept our food because it is salty.

Not only are they unfamiliar with salt, but they use no seasoning whatever and abhor it in all its forms.

231 Their manner of training dogs for the hunt is interesting. Whenever they manage to obtain a dog, they treat it at first with great affection in order to win its faithfulness. The dog is tied with an embira [a bast fiber yielded by various trees--Translator] cord by the side of its new master, who feeds it exclusively on meat in generous and frequent portions. The man spends nearly all his time with the dog: now petting it, now talking in its ear as though to a human being whose complete loyalty were to be won. This in fact he soon achieves, and to such a degree that the dog learns to detest everyone else and becomes watchful in the extreme.

This objective once reached, the lot of the poor dog changes completely: in the course of his wanderings through the forest, the Indian gives it absolutely nothing to eat, thus forcing it to hunt--and not for itself but for its master. Such is the means they use to turn any dog into an excellent hunter. It is a lamentably cruel procedure, and it works against their own interests in the long run, for all their dogs meet the sad fate of gradual emaciation and eventual death by starvation.

278 In addition to game, the fruit of the Araucaria constitutes one
481 of their basic foods for a considerable part of the year. During the months of April, May and June the Indians proceed in groups to the pine woods. They scale the trees with the help of a leather strap and a cord of bamboo fiber, which they tie in a loop around the trunk. They place the cord under the armpits and rest their body against it, while their feet are held against the trunk by the leather strap. They climb by alternately lifting the cord while their feet are secure, and

222 raising their feet while their body rests against the cord. [121] In
481 this fashion they scale the straight trunk of the Araucaria with wonderful rapidity and skill. Once they have reached the top, they climb among the branches and shake them to make the cones fall.

252 The seeds [pinhões] are simply roasted in the fire, crushed in a mortar, and reduced to a mush which is used to prepare a broth cooked with water. With this paste they also make small cakes, round and flat, the size of a saucer, which are roasted on the embers. The seeds cannot be stored very long when fresh because they soon
251 become infested with worms. To preserve them, the Indians place the pinhões in special baskets, well sealed and previously lined with cactus leaves. These baskets are immersed in small streams at especially selected locations for a month and a half. This preserves the nuts, which retain their nutritive qualities for a long period of time. Obviously, they are all but appetizing when removed from the water; they exude a powerful and unpleasant odor and their taste is repulsive and intolerable to our stomach. The Indians, however, are not upset in the least by these new characteristics of the pinhões, which they still prize very highly. The broths and cakes described above are largely made from the preserved nut.

222 Wild honey also plays an important part in their diet, and they
242 cannot do without it. Their ability time and again to discover a bee nest in the midst of the forest, nearly always at the top of a high tree, could only be described as an instinct or an additional sense. Once the nest has been sighted, they scale the tree by means of the process described above, with cord and strap, which they use [once on top] to steady themselves against the tree. This leaves their arms free to wield the short-handled axe with remarkable sureness and skill. They split the wood exactly in the right place and make an opening in the shape of a perfect triangle. Every part of the bee nest is utilized: the chrysalids are eaten along with the honey and comb, and every bit of the wax is gathered for various purposes.

They do not merely eat the chrysalids of bees but also those of other insects such as wasps, hornets, etc., the nests of which they seek out eagerly.

262 Apparently the dearth of game in these southern woods forced the Indians to resort to every possible means of satisfying their hunger.